



WORKSHOP

NUCLEAR PHYSICS RESEARCH AT THE MYRRHA ACCELERATOR AND ANNUAL BRIX NETWORK MEETING

6-9 April 2008

SCK•CEN

PROGRAMME

Monday, 7 April 2008

- 08:10 Bus transport from Sunparks to SCK•CEN
Workshop Nuclear Physics at the MYRRHA Accelerator
- Session 1 Existing large scale proton facilities & MYRRHA**
(Chair: Pierre D'hondt – SCK•CEN)
- 9:00 Welcome
E. van Walle (SCK•CEN)
- 9:05 Outline of the workshop
H. Ait Abderrahim (SCK•CEN)
- 9:15 Radioactive beams with a high intensity proton driver: The Eurisol project
Y. Blumenfeld (CNRS, Orsay)
- 9:45 Neutrons for Science (NFS) at SPIRAL2
D. Ridikas (CEA, Saclay)
- 10:15 Current Status & Future Plans for the TRIUMF ISAC Radioactive Beam Facility
M. Domskey (Triumf)
- 10:45 Coffee break
- 11:15 From ISOLDE to MYRRHA
J. Lettry (ISOLDE)
- 11:45 MYRRHA
H. Ait Abderrahim (SCK•CEN)
- 12:15 MYRRHA in a European context
A. Mueller (CNRS, Orsay)
- 13:00 Sandwich lunch
- Session 2a Users and scientific programs at existing facilities**
(Chair: Marc Huyse -KUL)
- 14:00 Applications of intense low-energy ISOL beams
U. Köster (ILL)
- 14:35 Simulations and Measurements for projectile and fission fragments
M. Ricciardi (GSI)
- 14:55 Radioactive Ion Beam Production by Neutron-Induced Fission in Actinide Targets at EURISOL Multi-MW Converter Target
Y. Kadi (CERN)
- 15:30 Challenges for light nuclei
K. Riisager (CERN)
- 16:05 Coffee Break
- 16:25 Depth controlled Li-8 beta-NMR and Physics at Interfaces
Z. Salman (Oxford)
- 17:00 Emission channeling from short-lived isotopes
U. Wahl (Univ. Lisbon)
- 17:35 Production of long lived exotic radionuclides for nuclear physics experiments
D. Schumann (PSI)
- 18:00 End
- 18:25 Bus transport from SCK•CEN to Gasthof De Beiaard
- 19:00 Conference dinner
- 23:00 Bus transport from Gasthof De Beiaard to Sunparks and SCK•CEN

Tuesday, 8 April 2008

08:10 Bus transport from Sunparks to SCK•CEN

Session 2b *Users and scientific programs at existing facilities* (Chair: Piet Van Duppen – KU Leuven)

- 9:00 Precision measurements for CVC tests
B. Blank (Univ. Bordeaux)
- 9:35 Fundamental interaction studies using beta decay of radioactive nuclei
N. Severijns (KUL)
- 10:10 TRIP: atomic traps for the study of fundamental interactions and symmetries
H. Wilschut (KVI)
- 10:45 Coffee break
- 11:05 High-precision experiments using radioactive ions, lasers and/or storage devices
J. Kluge (GSI)

Session 3 *Perspectives for MYRRHA* (Chair: Piet Van Duppen – KU Leuven)

- 11:50 Round-up and discussion
P. Van Duppen (KUL)
- 12:50 Sandwich lunch
- 14:00 End of workshop

BRIX workshop

Session 1 *Contributions to the BRIX workshop* (Chair: Pierre Descouvemont - ULB)

- 14:00 Transfer reactions around Ni68 at REX-ISOLDE
Nikolas Patronis (KUL)
- 14:25 Into the shape of neutron deficient polonium (Z=84) isotopes with in source laser spectroscopy at the CERN-ISOLDE facility
Thomas Elias Cocolios (KUL)
- 14:50 Mean Field calculations for nuclei in the Z=82 region
Veerle Hellemans (ULB)
- 15:15 Election capture delayed fission in the lead region
Andrei Andreyev (KUL)
- 15:40 Coffee Break
- 16:10 Measurement of neutron induced fission cross sections of Cm nuclides
Lucia-Ana Popescu (SCK•CEN)
- 16:35 Systematic study of the ternary fission of different Cm and Cf isotopes
Sofie Vermote (UGent)
- 17:00 Nuclear Properties of radioactive Potassium isotopes beyond N=20 and N=28 shell closures by laser spectroscopy
Tania Avgoulea (KUL)
- 17:25 Three body model of light nuclei with nonlocal potentials
Marc Theeten (ULB)
- 17:50 End
- 18:00 Dinner at the Clubhouse
- 19:30 Bus transport from SCK•CEN to Sunparks

Wednesday, 9 April 2008

BRIX workshop

08:10 Bus transport from Sunparks to SCK•CEN

Session 2 *Contributions to the BRIX workshop* (Chair: Kris Heyde – U Gent)

- 9:00 Analyses of a coulomb correction to the eikonal description of reactions
Pierre Capel (ULB)
- 9:25 Coulomb excitation of neutron rich odd-A Cu nuclei
Jan Diriken (KUL)
- 9:50 Coulomb dissociation as an indirect method in nuclear astrophysics
Rajdeep Chatterjee (ULB)
- 10:15 A new highly segmented beta-gamma detection set-up at LISOL
Oleg Ivanov (KUL)
- 10:40 Coffee Break
- (Chair: Cyriel Wagemans – U Gent)
- 11:10 The WITCH experiment: status and perspectives
Simon Van Gorp (KUL)
- 11:35 Collectivity in the Co isotopes around 68Ni studied in the beta decay of 65,66,67Fe at LISOL
Dieter Pauwels (KUL)
- 12:00 The collective model from a Cartan-Weyl perspective
Stijn De Baerdemacker (UGent)
- 12:25 Supersymmetric transformations for the coupled-channel potentials and the inverse scattering problem
Andrey Pupasov (ULB)
- 12:50 Sandwich lunch
- 14:00 End of workshop
- Bus transport from SCK•CEN to Sunparks